RHINO Installation Instructions for PSS24-035 Power Supply

READ INSTRUCTIONS BEFORE INSTALLING OR OPERATING THIS DEVICE. KEEP FOR FUTURE REFERENCE.

1. Safety instructions

- To ensure sufficient convection cooling, always maintain a safety distance of ≥ 20 mm [.79in] from all ventilated surfaces while the device is in operation.
- The device is not recommended to be placed on low thermal conductive surface, for example, plastics.
- Note that the enclosure of the device can become very hot depending on the ambient temperature and load of the power supply. Do not touch the device while it is in operation or immediately after power is turned OFF. Risk of burning.
- Do not touch the terminals while power is being supplied. Risk of electric shock.
- Prevent any foreign material, particles or conductors from entering the device through the openings during installation. It can cause electric shock, safety hazard, fire, and/or product failure.
- Warning: When connecting the device, secure GND connection before connecting L and N. When disconnecting the device, remove the L and N connections before removing the GND connection.

2. Device description (Fig. 1)

(1) Input & Output terminal block connector
(2) DC voltage adjustment potentiometer
(3) DC OK control LED (green)

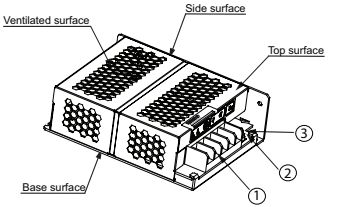


Figure 1 - Device Descriptions

3. Installation of the Device (Fig. 2)

A. Mounting holes for power supply assembly onto the mounting surface. Power supply shall be mounted on minimum 2 mounting holes using M3 x 0.5 screw minimum 5 mm (0.19in) length.
B. This surface belongs to customer's system or panel where the power supply is mounted.
C. Connector.

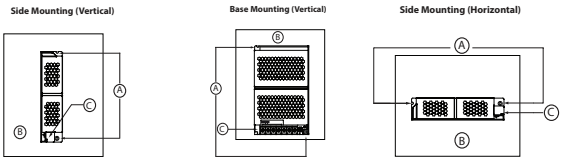
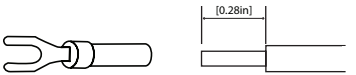


Figure 2 - Mounting

Use flexible (stranded wire) or solid wire 0.52-3.3 mm^2 (AWG 20-12). The torque at the connector shall not exceed 1.3 Nm (11.3 in-lb). The insulation stripping length should not exceed 0.28 in or 7 mm. AutomationDirect P/N BM-00120 lug or equivalent recommended for stranded wire. Refer to figure 3.



AutomationDirect P/N BM-00120 can be used.

Figure 3 - Wire Type

4. Installation of Mounting Accessories (Fig. 4)

- Only use M3 screw ≤ 6 mm through the base mounting holes. This is to keep a safety distance between the screw and internal compontents.
- Recommended mounting tightening torque: 0.4 to 0.8 Nm (3.5 to 7 in-lb).

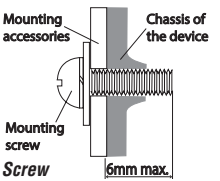


Figure 4 - Mounting Screw

FOR TECHNICAL ASSISTANCE CALL 770-844-4200

Technical Data For PSS24-035

Input (AC)	
Input voltage range	85-264VAC (DC input range 100-375 VDC)
Frequency	47-63Hz (0 Hz @ DC input)
Nominal current	0.72A Max. @ 115VAC, 0.4A Max. @ 230VAC
Inrush current limitation. I2t (+25 °C) typ.	< 30A @ 115VAC, 60A @ 230VAC
Leakage current	< 1 mA
Recommended circuit breaker (Characteristic B)	10A
Output (DC)	
Nominal output Voltage / Adjustment range	24VDC / 22-28VDC
Output power	35W
Output current	1.46A
PARD (ripple and noise) (20MHz)	<150mVpp (@nominal values)
Start-up time	<2500ms@100% load (25°C [77°F]) and typical line input
Hold-up time	> 15ms @ 115VAC, >80ms @ 230VAC with 35W load (25°C [77°F])
Rise time	< 30ms @ 100% load (25°C [77°F])
Efficiency	> 85% @ 115VAC, >84% @ 230VAC
Line regulation	< 0.5% typical (@ 85-264VAC input, 100% load)
Load regulation	< 1% typical (@ 85-264VAC input, 0-100% load)
General Data	
Case cover	Aluminium (AI1100)
Dimensions (L x W x H)	128 mm x 97 mm x 38 mm (5.04 in x 3.82 in x 1.50 in)
Weight	0.237 kg (0.52 lb)
MTBF	> 700,000 hrs.
Noise	Sound pressure level (SPL) < 40 dBA
Cooling	Convection
Input/Output terminal	Terminal block 5 Pin rated 300V/20A
Wire size / torque	0.52-3.3 mm² (AWG 20-12) / 1.3 Nm (11.3 in-lb)
Input/Output wire	AWG20-12
Shock test	30g half sine, 3 time per direction, 6 directions, per IEC60068-2-27
Vibration	10 to 150Hz, 5g, 20 min. each axis per IEC60068-2-6
Safety / Environmental	
EMC / Emissions	FCC Title 47, Class B/EN55032;CISPR32, Class B
Immunity	EN 61000-4-2,1995; EN61000-4-3,1998; EN61000-4-4,1995; IEC61000-4-5,1995; EN61000-4-6,1996; EN61000-4-8 or IEC61000-4-12 or IEEE C62.41; EN61000-3-2,1994
Voltage dips	Conform to EN61000-4-11
Galvanic isolation	Input to Output : 3KVAC, Input to Ground : 1.5KVAC, Output to Ground : 0.5KVAC
Approvals	UR/cUR recognized to UL60950-1 and CSA C22.2 No. 60950-1; CB test certificate and report to IEC60950-1, UR/cUR recognized to UL62368-1 and CSA C22.2 No. 62368-1; CB test certificate and report to IEC62368-1, CE (EMC and Low Voltage directive)
CE RoHS 2002/95/EC c UL us E198298 E508040	
RoHS Compliant	Yes
Operating temperature	-10 °C to +70 °C* (14°F to 158°F)
Storage temperature	-25 °C to +85 °C (-13°F to 185°F)
Humidity at +25 °C, no condensation	< 95 % RH non-condensing

**** Operating to 70 °C (158° F) possible with a linear derating to half power from 50 °C to 70 °C (122° F to 158° F)***